EMERGENCY AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

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DATE: March 20, 2002
2002-06-53

Transmitted as follows is emergency airworthiness directive (AD) 2002-06-53, for the attention of all owners and operators of Airbus Model A319, A320, A321, A330, and A340 series airplanes, equipped with certain Thales Avionics Digital Distance and Radio Magnetic Indicators (DDRMI).

Background

The Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, recently notified the FAA that an unsafe condition may exist on Airbus Model A319, A320, A321, A330, and A340 series airplanes, equipped with certain Thales Avionics DDRMIs.

The DGAC indicated that several operators have reported DDRMI circuit breaker tripping, followed by the loss of Very High Frequency Omni Range (VOR) and Distance Measuring Equipment (DME) sources for navigation and displays. Investigation has revealed that the DDRMI transformer short-circuited, leading to leakage of 115 volt alternating current (AC) to systems connected to DDRMI ARINC 429 input data busses.

The computers connected to the ARINC 429 bus that may be affected include VOR 1 and 2, DME 1 and 2, Automatic Direction Finder (ADF) 1 and 2, Display Management Computer (DMC) 1 and 2 and 3, Centralized Fault Display Interface Unit (CFDIU), Control and Display Unit - Air Data/Inertial Reference System (CDU-ADIRS), ADIRS 1 and 3, Fuel Quantity Indicating Computer (FQIC), Data Management Unit (DMU), Flight Augmentation Computer (FAC) 2, Flight Management and Guidance Computer (FMGC) 2, Braking and Steering Control Unit (BSCU), Spoiler and Elevator Computer (SEC) 2 and 3, Elevator and Aileron Computer (ELAC) 2, Multi Mode Receiver (MMR) 1, Centralized Maintenance Computer (CMC) 1 and 2, Flight Warning Computer (FWC) 1 and 2, and Multipurpose Control and Display Unit (MCDU) 2.

Failure of the DDRMI, if not corrected, could cause the loss of data from the affected computers to other systems and degradation or total failure of the computers, leading to reduced ability to control the airplane in adverse conditions.

Explanation of Relevant Service Information

Airbus has issued the following all-operators telexes (AOTs) which describe procedures for deactivation of certain Thales Avionics DDRMIs:

- Airbus AOT A320-34A1262, dated March 19, 2002, applicable to certain Airbus Model A319, A320, and A321 series airplanes;
- Airbus AOT A330-34A3109, dated March 19, 2002, applicable to certain Airbus Model A330 series airplanes; and
- Airbus AOT A340-34A4120, dated March 19, 2002, applicable to certain Airbus Model A340 series airplanes.

The DGAC classified these AOTs as mandatory and issued French airworthiness directive T2002-150(B), dated March 19, 2002, applicable to Airbus Model A319, A320, and A321 series airplanes; and T2002-151(B), dated March 19, 2002, applicable to Airbus Model A330 and A340 series airplanes; in order to ensure the continued airworthiness of these airplanes in France.

FAA's Conclusions

These airplane models are manufactured in France and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the DGAC has kept the FAA informed of the situation described above. The FAA has examined the findings of the DGAC reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of this same type design registered in the United States, this AD is issued to require deactivation of certain Thales Avionics DDRMIs. The actions are required to be accomplished in accordance with the applicable Airbus AOT, except as described below.

Differences Between Foreign Airworthiness Directive and this AD

The French airworthiness directives apply both to airplanes on which DDRMIs with specified part numbers were installed in production since 1999, and also to other airplanes on which DDRMIs with these same part numbers have been repaired or replaced since 1999. This AD applies to airplanes equipped with Thales Avionics DDRMIs listed in the applicable Airbus AOTs, regardless of repair or replacement status. The FAA has determined that it is possible that a DDRMI could have been repaired or replaced and that the required retention period for maintaining such records may have expired. Therefore, operators may not be able to ascertain whether repair or replacement has been accomplished.

Since the FAA considers the unsafe condition resulting from failure of the DDRMI is far more critical than the operational consequences of deactivating the DDRMI, this AD mandates deactivation of all Thales Avionics DDRMIs listed in the applicable Airbus AOTs. Operators may request authorization to reactivate a particular DDRMI, if they have data to substantiate that the DDRMI is not susceptible to the failure condition identified in this AD.

In addition, the French airworthiness directives specify that dispatch with an inoperative standby compass (Master Minimum Equipment List item 34-22-02a) is limited to a “B” rectification interval. This AD does not contain this restriction because the FAA’s Master Minimum Equipment List already limits an inoperative standby compass to a “B” rectification interval.

Interim Action

This AD is considered to be interim action until final action is identified, at which time the FAA may consider further rulemaking.

Determination of Rule’s Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this AD effective in less than 30 days.

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958) pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this AD.

2002-06-53 AIRBUS INDUSTRIE: Docket No. 2000-NM-80-AD.

Applicability: Model A319, A320, and A321 series airplanes equipped with Thales Avionics Digital Distance and Radio Magnetic Indicators (DDRMIs) having part numbers specified in paragraph 3.2 of Airbus All Operator Telex (AOT) A320-34A1262; Model A330 series airplanes equipped with Thales Avionic DDRMIs having part numbers specified in paragraph 3.2 of Airbus AOT A330-34A3109, dated March 19, 2002; and Model A340 series airplanes equipped with Thales Avionic DDRMIs having part numbers specified in paragraph 3.2 of Airbus AOT A340-34A4120, dated March 19, 2002.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of the DDRMI, which could cause the loss of data from the affected computers to other systems and degradation or total failure of the computers, leading to reduced ability to control the airplane in adverse conditions, accomplish the following:

Deactivation of the DDRMI

(a) Within 7 days after receipt of this AD, deactivate the DDRMI in accordance with Airbus All Operator Telex (AOT) A320-34A1262, dated March 19, 2002; Airbus AOT A330-34A3109, dated March 19, 2002; or Airbus AOT A340-34A4120, dated March 19, 2002, as applicable.

NOTE 2: Where there are differences between the Minimum Equipment List (MEL) and this AD, this AD prevails.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

NOTE 4: The subject of this AD is addressed in French airworthiness directives T2002-150(B) and T2002-151(B), both dated March 19, 2002.

(d) **AD 2002-06-53, issued on March 20, 2002, becomes effective upon receipt**.

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Issued in Renton, Washington, on March 20, 2002.

Original signed by:
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